

Working Group 3

College and Career Readiness Pathways

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Policy Area:

Develop a world class instructional system that will enable Maryland high school graduates to match the achievement of the students in the highest achieving countries in the world with respect both to average achievement and to the gap between top performing students and the lowest achievers.

The state will establish a standard of literacy in English, mathematics (and when practicable also science) at the level needed to assure a high probability of success in the first year program of the state's community colleges. Most students will be expected to achieve that standard – the College and Career Readiness or CCR standard – by the end of the 10th grade. Almost all others will be expected to achieve it by the time they leave high school..

All high school students who meet the CCR standard will be able to access a set of **post-CCR pathway programs** that includes: 1) at least one of the following: an AP Diploma program (consisting of Advanced Placement courses specified by the College Board), the International Baccalaureate Diploma program, or the Cambridge Examinations International General Certificate of Secondary Education; 2) a program that enables students to earn an Associate's Degree (at no cost to parents or student) upon graduation from high school or commence work towards a baccalaureate degree with the possibility of transfer to a Maryland four-year college, and 3) access to CTE programs offered by Maryland high schools, community colleges, four-year institutions and training providers that allow students to explore various career options and acquire technical credentials with significant value in the labor market [details to be determined by CTE Subgroup]. Elective courses, extra-curricular activities and other programs, services and academic opportunities typically offered by Maryland high schools will remain available to students no matter which post-CCR pathway program they select.

Element Detail 3a

Element: Develop a **fully aligned instructional system**, including curriculum frameworks, course syllabi and assessments, together with clear examples of standard-setting work and formative assessments to ensure that students stay on track

Design Assumptions:

An aligned instructional system includes:

1. **Standards, or curriculum frameworks with embedded standards**, in core subjects (English language arts, mathematics, sciences, social studies/**history, music and art**) that map out the core learning goals of each subject at each grade level and lay these out in a logical development sequence reflecting the content standards that students should have been exposed to previously as well solid developmental science on how students absorb new skills, knowledge, and ways of thinking
2. **Curriculum resources** for each subject at each grade level, built on the aforementioned frameworks and standards. These should include, for each subject or subject cluster:
 - a. State-developed course syllabi for each course at each grade level, with sample lessons for teachers to use as models.
 - b. State-approved units of curriculum for all subjects and grade levels, aligned with the curriculum frameworks. These units may be gathered from courses and units developed by teachers and others in and beyond Maryland, and will be reviewed and approved for quality by MSDE and the State Board of Education. **Curricula approved by MSDE must be designed as complete courses, which, when properly implemented and taken in sequence, will enable students to meet the CCR standard by the end of grade 10.**

Schools identified as low-performing by their scores on state-wide assessments will be visited by inspection teams assembled and working under the supervision of MSDE; based on what they find, those teams will recommend courses of action for addressing the problems revealed by the inspection. Among those options is requiring a school to use the State courses as designed until such time as its students are on track to meet the CCR standards by the end

of 10th grade. In such cases, the inspection team will also recommend appropriate forms of training and technical assistance for the designated schools, including possibly pairing them with other schools that more successfully serve similar students. Other schools (i.e. those not low-performing) will be encouraged but not obligated to use the State–approved curricular frameworks and units (2b above).

3. **In the core subjects of English, math, science and history/social science, an assessment system** designed to assess students' acquisition of the qualities specified in the curriculum frameworks and standards. The assessment system must include:
 - a. Summative assessments that meet federal requirements
 - b. Summative assessments that provide means by which to judge whether students have met the State CCR standard
 - c. Evidence of meeting high school graduation standards in subjects not covered by the CCR standard
 - d. Formative assessments available for all core subjects and grade levels for teachers to use to determine whether students are on track for success against the CCR standard and the high school graduation standards.

Implementation Considerations:

1. The work should start with an inventory of the current instructional system and then build on curriculum review processes already in place at MSDE to develop curriculum frameworks and lesson “seeds”, which are outlines of lessons for teachers to expand, although much work will be needed to accomplish this goal
2. Designing this system will be a multi-year effort that will involve the development and piloting of each component by teachers and incorporating their feedback
3. The system will require an online platform to house this set of tools
4. The strongest teachers in each content area and grade level should play key roles in this work, which could tie into the teacher leader career ladder framework being developed by Working Group 2

Element Detail 3

Element: Establish and implement a **CCR standard** set to global standards that most students should meet by the end of grade 10 **and almost all students should meet by the time they leave high school.** This standard will certify that students have the requisite literacy in English and mathematics (and when practicable science) needed to succeed

in first-year credit-bearing courses in open enrollment postsecondary institutions in the State. This CCR standard must be periodically reviewed to ensure that it is – and remains--internationally competitive.

Design Assumptions:

1. Setting the standard:

- a. At the outset, the CCR standard will be set where PARCC set it: a score of 4 on PARCC Algebra 1 and English 10 exams
- b. At such time as PARCC is no longer a viable option (and because PARCC's standard was not empirically set for success in Maryland), the State should base its CCR standard on an empirical study of the English and mathematics content that must be mastered to give a student a high probability of success in the first year of credit-bearing courses at open-enrollment college programs in Maryland. The results of that empirical study will establish the CCR benchmark upon which the new State tests are designed.
- c. The State should also conduct the research needed to establish whether the CCR literacy and numeracy standards set by the empirical study are comparable to the global standard in top performing countries for the same age cohort as in Maryland and whether they also align with the workforce needs of Maryland. This entails having a sample of Maryland students take the assessments of top-performing jurisdictions as well as Maryland assessments and comparing the results.
- d. The state should put in place a process for reviewing the CCR standard periodically to ensure that it continues to align with open-enrollment expectations and the workforce needs of Maryland as well as global standards.
- e. At such time as it is practicable to include science in the CCR standards, the state will follow similar procedures with respect to standards and assessments.

2. Assessing student achievement against the standard:

- a. The State will use PARCC until the State's new test, the Maryland Comprehensive Assessment Program (MCAP), is fully implemented in the 2020-21 school year.

3. Maryland should participate in the OECD PISA survey so that it can compare its education system and student achievement with the best in the world

Implementation Considerations:

1. *Either* conduct a new empirical study to determine the CCR standard in Maryland community colleges *or* consider using the data and analysis in NCEE's completed study (which can be found here: <http://ncee.org/college->

and-work-ready/ If a new empirical study is undertaken it must be done quickly as Maryland is committed to piloting the new tests in 2019).

2. In developing the new MCAP, MSDE shall take every possible step to incorporate the findings from the empirical study into the test design process to ensure that students have the opportunity to meet the desired CCR standard by grade 10.
3. If teacher-scored exams are adopted, scoring of exams could be a strategy for professional development for teachers
4. Engage with open enrollment postsecondary institutions to discuss phasing out of placement testing and the acceptance of MCAP proficiency as readiness for credit-bearing coursework in English and math.
5. Work with community colleges to enable high school students who have met the CCR standard to access credit-bearing college courses in grades 11 and 12, building on the existing dual enrollment options that community colleges and some four-year institutions offer
6. Develop a communication strategy to explain the new CCR standard, the new State assessment system, and the implications for college entry and career readiness to parents, students, educators and the wider public.

Element Detail 3c

Element: The Commission’s Preliminary Report calls for reorganizing schools so that teachers trained to diagnose and address students’ learning needs can work collaboratively to monitor students and intervene when one is struggling. Teachers will meet regularly to compare notes on student progress, decide on any needed interventions – academic or referral to services – and assign a single teacher to take responsibility for following the student until he or she is back on track. (See Working Group 2 elements)

As it will take several years to put this system in place, it will be necessary to develop a transitional program to address the needs of struggling learners. This will be a program to provide **tutoring in reading** for all students who are behind grade level, with a particular emphasis on bringing students up to grade level in reading by 3rd grade. (At such time as the state can provide sufficient resources, and if at that time a transitional program is still needed, similar tutoring arrangements should be made for students needing help with math.) Funding will be provided for a lead teacher in each school who will be in charge of the tutoring program. The school will be required to use the rest of this special grant money for tutoring but the design of the program will be up to the school, to enable the school to address the unique needs of its pupils and to take advantage of local resources. MSDE will be responsible for developing a statewide professional development program for

the lead teachers in tutoring. Over time, fewer students will need tutoring as teachers are better trained to provide individualized instruction to students that are aligned with CCR standards and State curriculum frameworks. However, there will always be some students who fall behind; increasingly, they will be tutored by their regular teachers as those teachers' time is freed up for such work and as they are trained in diagnosing and addressing learning difficulties. [See Working Group 2 element on teacher PD and sufficient time in the school day for this purpose]

Many of the students who require ongoing tutoring after the transitional program ends (in roughly 6–8 years) will attend schools serving a high proportion of disadvantaged, low performing students or students with special needs, and a portion of the additional resources recommended by Working Group 4 for these at-risk students will be available over the long-term to provide the needed supports and services.

Just as the Commission's Preliminary Report proposed several measures to greatly reduce the proportion of students falling behind, it also proposed measures for enriching the curriculum for students who need and could benefit from challenges that go beyond the standard curriculum. MSDE and local districts will need additional funding – and policy direction – to develop options for students who would benefit from opportunities for academic acceleration and enrichment.

Design Assumptions for Transitional Program:

1. As a new system is implemented, school leaders and teachers should be trained in new approaches to supporting students. This will involve three strands of training: training for school leaders on the system of supports; training for veteran teachers in schools; and training for new teachers in preparatory programs on the pedagogy as well as the new system.
2. The special-education system will remain in place for students with disabilities, but as more students are supported early, fewer students will be referred for special-education services

Implementation Considerations:

1. HB 1415 (Chapter 361) authorizes funding for evidence-based early literacy intervention in grades K-8 with a priority for K-3rd graders in schools with high concentrations of students living in poverty. The bill mandates \$2.5 million in each of fiscal 2019 through 2022 for the program.
2. HB 1415 funding expires after fiscal 2022, with a requirement to evaluate the effectiveness of the program at that time. Because tutors are considered a transitional program, needed until teachers have time and capacity to provide this support themselves, HB 1415 funding may have to continue in order to cover the full 6 to 8 years required to fully implement the new forms of school organization and professional development that will make it possible for regular teachers to take over the tutoring function

Element Detail 3d

Element: Develop an extended curriculum for students in middle school and early high school who are not likely to meet the CCR standard by the end of 10th grade that gives them extra time and more supports to help them meet it as soon thereafter as possible

Design Assumptions:

1. Starting in middle school, students likely not to meet the CCR standard by the end of 10th grade should be offered more personalized options by which to work towards the CCR standard, including additional time and support as well as differentiated instructional techniques customized for each student. Differentiation may include culturally responsive lessons, adjustments in pedagogy (especially project- and problem-based applied learning), and varied instructional timing.
2. Such alternative, "extended" classes will work towards the *same standards*, but spend *more time* (and supply more support) on the content in order to assure

student success.

3. Teachers will recommend students for this option, informed by standardized assessments, formative assessments, and their experience in the elementary and middle-school curricula. Parents can appeal this recommendation and request that students not be placed in an “extended” curriculum, but students may be transferred back in if they are not succeeding in the standard curriculum
4. If any student moves more quickly than expected, he/she should be transferred into the standard stream of classes
5. Students can be placed in the differentiated option for specific subjects, not necessarily their entire curriculum. (As the CCR is based on ELA and math, those are the subjects where such differentiated options are most needed.)

Implementation Considerations:

1. There will need to be a development and start-up period for the creation of new curriculum materials and course syllabi.

Element Detail 3e

Element: Require all local school systems to provide all high school students who meet the CCR standard with access to a set of **post-CCR program pathways** that includes: 1) at least one of the following: an AP Diploma program (consisting of Advanced Placement courses specified by the College Board), the International Baccalaureate Diploma program or the Cambridge Examinations International General Certificate of Secondary Education; 2) a program that enables students to earn an Associate’s Degree (at no cost to parents or student) upon graduation from high school or commence work towards a baccalaureate degree with the possibility of transfer to a Maryland four-year college; and 3) access to CTE programs offered by Maryland high schools, community colleges, four-year institutions and training providers that allow students to explore various career options and acquire technical credentials with significant value in the labor market [details to be determined by CTE Subgroup]. Electives, extra-curricular activities, and the full range of courses and services typically offered by Maryland high schools will remain available to students no matter which post-CCR pathway they select.

Design Assumptions:

1. Local school systems will ensure that all high schools that offer at least one of the selective college preparatory programs will be certified by the organization that provides and scores their examinations, and will train staff to deliver the curriculum
2. Local school systems will partner with Maryland colleges and out-of-state institutions approved by the Maryland Higher Education Commission to offer programs leading

towards Associate's degrees or work with four-year institutions. Students can take college credit courses at their high school or at an institution of postsecondary education, depending on specific agreements between districts and postsecondary institutions. There is also the option of using technology (online or distance learning) to assist with delivery of courses in whole or in part to increase student access. Some courses may count for both high school and college credit, under dual enrollment agreements.

3. Students will be able to take introductory CTE coursework before meeting the CCR standard in order to engage their interest and retain them in high school. However, continuation into CTE courses required as part of sequences leading directly to approved occupational credentials is available only to students meeting the CCR standard.

Implementation Considerations:

1. Maryland will need to set a date by which all local school systems must offer students access to the post-CCR pathways specified above
2. The community colleges and 4-year institutions of higher education must work out partnership agreements with school districts to enable districts to offer college courses that further student progress towards baccalaureate and Associate's degree programs at no cost to parents and students. Every local school system currently has such an MOU with at least one community college, but these agreements allow school systems to charge fees for college courses to students ineligible for free and reduced price meals. These agreements will need to be revised to provide access for all students at no cost to them (include fees and textbooks). The State funding formula for dual enrollment students should be revised to count a student's enrollment as either K-12 or community college, not both.
3. Associate's degree programs are currently – and may continue to be--offered on the community college campus and/or high school campus, but preference should be given to the latter to minimize the need for student travel.
4. MD may need to provide start-up funds for IB, AP and Cambridge programs in situations where these programs are not already available

Element Detail 3f.

The State Board will revise high school graduation requirements so that students who achieve CCR will be able to enter any of the post-CCR pathways and still earn high school diplomas. This includes retaining the expectation that students will complete four years of English and math, as that is the admission standard for the University System of Maryland. All courses required for graduation, including those in history, science and social studies, should be organized such that students can, by the end of their senior year, satisfy both the requirement for post-CCR pathways described in Element 3e and the

State high school diploma requirements. Students who participate in one of the post-CCR pathways may take as many of the other courses offered by their high school as their schedule will allow and may participate in high school extracurricular activities.

Design Assumptions:

1. Any additional high school graduation requirements in mathematics or English that go beyond the CCR requirements and that have not been met by the time a student achieves CCR will need to be met by the providers of the pathway on which the student progresses. Requirements not yet met in other subjects will have to be provided by the high school at times worked out in collaboration with the pathway provider.
2. Students who complete all course requirements will still earn a Maryland high school diploma upon graduation. The State Board of Education will create diploma “endorsements” that acknowledge students with attainments that go beyond the course-completion requirements, including meeting the CCR standard, completing the sequence of IB courses, etc. *[Issue here: Under this provision, students who do not achieve CCR would still graduate if they meet all other course-completion requirements. Is that what the Working Group intends?]*
3. While students pursue any of the post-CCR pathways, they will remain enrolled at least part-time in their high school and the high school remains responsible for the student until a diploma is awarded; this includes the range of services that a student may need, including academic, career and personal advising
4. College courses meeting high school graduation requirements and approved by MSDE will also count for high school credit.

Element Detail 3g

Element: Develop 11th and 12th grade programs for students who do not meet the CCR standard by the end of 10th grade. This population should diminish with time as the Commission’s reforms are implemented. Such programs should not be remedial in design; rather, they must be designed to contain the content that the student needs to reach the CCR standard by the end of senior year. The student’s program must also be designed to enable that student to satisfy all high school graduation requirements by the end of senior year. Any CCR preparation courses should use a curriculum that are highly applied (project- and problem-based) and engaging. It may be occupationally focused. For students who are close to meeting the CCR standard, the necessary instruction could be provided in the summer following 10th grade to allow the student to participate in one of the post-CCR pathways beginning in 11th grade.

1. Districts must make provision for students who have not met the CCR standard by 12th grade, permitting them to stay in school until age 21 so long as they are working toward that standard. (Others may prefer the GED option, which also remains available for students who don't meet either the CCR or HS graduation requirement.)

Implementation Considerations:

To develop cost estimates, we will need to:

1. Estimate the number of students who will not be able to meet the CCR standard when it is first used to determine eligibility for the post-CCR pathway programs, as well as how far they are from meeting the standard
2. Estimate the proportion of students who, after the reforms are implemented, will not meet the CCR standard and how long it will take for them to do so, at what cost
3. Estimate the yearly rate of decline in the students needing additional preparation and supports to meet the CCR standards
4. Estimate what it will cost to develop engaging curricula and appropriate materials for students who are behind the CCR standard at the end of grade 10, and to train teachers to use these materials and curricula well
5. Estimate the number of students who, in the early stages of implementation and then, in the steady state, who will not have reached the CCR standard by the end of grade 12, and the cost of getting those who choose to stay in school to the standard by the age of 21